

Work Order ID 54956

January 5, 2010 10:44:35 AM



Page 1

Item ID: D350-636-012

Accept



Setup Start



Revision ID:

Stop



Item Name: Skidtube RH

Start Date: 05/01/2010 Start Qty: 1.00



Cust Item ID:

Required Date: 18/01/2010 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals:

Process Plan:

PP

Date: 10-1-05 Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

D2750

Rev F

100

0.00



DOCUMENT CONTROL

DC

0.00

Memo

Document Control

Photocopy blue file and type labels per PPP D350-636-012 CHG 005

8 10/01/26

HJ for MF 10/01/25

54956

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 54956

January 5, 2010 10:44:35 AM

Page 2

Item ID: D350-636-012

Accept

Setup Start

Revision ID:

Stop

Item Name: Skidtube RH

Start Date: 05/01/2010 Start Qty: 1.00

Cust Item ID:

Required Date: 18/01/2010 Req'd Qty: 2.00

Customer:

Reference:

Run Start

Approvals: Process Plan: Date: Tooling: Date:

Stop

QC: Date: SPC (Y/N): Date:

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
110		0.00							
Skidtubes	Skidtubes								
Skidtubes	Memo	0.00							
	1- Mark cut line on aft end of D2600-3-Bent using Jig DT 8150. Cut to length as per Dwg D2750. Deburr end								
	2-Drill pilot holes as per Dwg D2750 sheet 5 (D2750-2 details).Drill using drill Jig DT8150 & DT8863.								
	3- Mark fwd end for cutting using Drill Jig DT 8150 & DT8863 and cut as per dwg D2750.								
	4-Drill pilot holes for blade fitting bolts using DT8983. Open to 0.500"								
	5- locate DT8329 off of blade fitting bolt holes and drill pilot holes blade fitting.								
	6-Open up holes for Detail K to 0.375" (4 holes per side) blade fitting location holes to 0.500" (total of 4 holes per side) as per dwg D2750. Open holes for ground handling and detail L to 0.500" (8 holes per side)								
	7-Drill pilot holes for wearplates as per Dwg D2750 using DT8108. Open to 0.297".								
	8-Open up holes of Detail J to 0.297" (total of 2 holes per side)								
	9-Weld D2744 Cap as per Dwg D2750 and QSI 004.Fill grooves in bend left from bending as per QSI 004								
	A/R Aluminum Rod								
	10-Grind welds flush as per Dwg D2750								

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries

Work Order ID 54956

January 5, 2010 10:44:35 AM



Page 3

Item ID: D350-636-012

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Setup Start



Revision ID:

Item Name: Skidtube RH

Stop



Start Date: 05/01/2010 Start Qty: 1.00



Cust Item ID:

Required Date: 18/01/2010 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: Date: Tooling: Date:

Run Start



QC: Date: SPC (Y/N): Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
	11- scribe batch #.	BE 10/01/07							
120	QC10- Inspect visual per QS1004- ground welds	0.00							
QC	Memo	0.00							
Quality Control									
130	QC5- Inspect part completeness to step on W/O	0.00							
QC	Memo	0.00							
Quality Control									
140	Chemical Conversion Coat per QS1005 4.1	0.00							
HandFinish	Memo	0.00							
Hand Finishing									

⇒ 8 10/01/07

FD

8 10/01/07

FL

UK

MS 10-01-07

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries

Work Order ID 54956

January 5, 2010 10:44:35 AM



Page 4

Item ID: D350-636-012

Accept



Setup Start



Revision ID:

Stop



Item Name: Skidtube RH

Start Date: 05/01/2010 Start Qty: 1.00



Cust Item ID:

Required Date: 18/01/2010 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

150

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

DP 10-1-11

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 54956

January 5, 2010 10:44:35 AM

Page 5

Item ID: D350-636-012

Accept

Revision ID:

Item Name: Skidtube RH

Start Date: 05/01/2010 Start Qty: 1.00

Required Date: 18/01/2010 Req'd Qty: 200

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run

Start

Stop

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

160

0.00



Skidtubes

Skidtubes

Memo

0.00

1-Open up holes of Detail L and ground handling to 0.625" (total of 8 holes per side) as per dwg D2750.

2-Open up holes of Detail K to 0.750" (total of 4 holes per side) as per dwg D2750.

3-Open float holes to .500" (4 per Side)

4-Chamfer holes of Detail K, L, ground handling and float holes per dwg D2750 (welding instructions on sheet 9)

5-Deburr and blow out all chips from inside of tube

6-Prepare tube for welding, remove alodine as required.

7-Bond web D2739 in place as per QSI 015

A/R Sikaflex-291

batch:

exp. date:

8- Weld spacers D3490-1, D3490-3 and D2743 as per dwg D2750 & QSI004 (welding instructions on sheet 9)

A/R Aluminum Rod

batch:

9-Grind welds flush as per Dwg D2750

10-Spot face ground handling holes section (total of 4 places perside) as per dwg D2750

mb
10-01-11

PTO

AWM 10-1-11

10-02-20

AWM 10-1-14

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D350-636-012 PAR #: _____ Fault Category: Skid tubes NCR: Yes No DQA: [Signature] Date: 10-01-28
 Resolution: re-work Disposition: re-work QA: N/C Closed: [Signature] Date: 10-01-28

NCR: <u>54956</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
10/1/14	160	Found At inspection that the spot faces were too deep + at an angle. R.C Lack of Attention	<u>[Signature]</u>	Fill Qty + 8 spot faces with weld A/R <u>M12860</u> per 252004 - Grind weld flush	BE 10/01/14	S 10/01/14	<u>[Signature]</u>	S 10/01/14
				- Re spot face correctly	Q.M 10-01-14	S 10/01/14	X	S 10/01/14

NOTE: Date & initial all entries

Work Order ID 54956

January 5, 2010 10:44:35 AM



Page 6

Item ID: D350-636-012

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Revision ID:

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Item Name: Skidtube RH

Start Date: 05/01/2010 Start Qty: 1.00



Cust Item ID:

Required Date: 18/01/2010 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals: Process Plan: Date: Tooling: Date:

Stop



QC: Date: SPC (Y/N): Date:

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

11- At section AJ-AJ drill out x-bolt spacer to 0.404"

86 12/01/12

12-Deburr holes

170

QC10- Inspect visual per QSI004- ground welds

0.00



27 S1000114

QC

Memo

0.00

(40)

Quality Control

180

QC5- Inspect part completeness to step on W/O

0.00



27 S1000114

QC

Memo

0.00

(41)

Quality Control

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 54956

January 5, 2010 10:44:35 AM



Page 7

Item ID: D350-636-012

Accept



Setup Start



Revision ID:

Stop



Item Name: Skidtube RH

Start Date: 05/01/2010 Start Qty: 1.00



Cust Item ID:

Required Date: 18/01/2010 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

190

Pressure Wash per QSI005 4.3

0.00



HandFinish

Memo

0.00

10-01-10

10-01-10

XL

10

Hand Finishing

200

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00



Powdercoat

Memo

0.00

10-01-10

10-01-10

XL

10

Powder Coating

START TIME: 9:15AM
OVEN TEMPERATURE: 320°F
FINISH TIME: 9:25AM

210

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

10-01-20

10-01-20

10

10

Quality Control

Inspect for foreign object per QSI 024

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 54956

January 5, 2010 10:44:35 AM

Page 8

Item ID: D350-636-012

Accept

Setup Start

Revision ID:

Stop

Item Name: Skidtube RH

Start Date: 05/01/2010 Start Qty: 1.00

Cust Item ID:

Required Date: 18/01/2010 Req'd Qty: 0.00

Customer:

Reference:

Run Start

Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop

QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

220

0.00



HandFinishing

HandFinish

Memo

0.00

BR 10-01-20.

①

Hand Finishing

Install inserts as per dwg D2750

230

0.00



HandFinishing

HandFinish

Memo

0.00

Hand Finishing

1-Inspect for Foreign Objects

2-Spray inside of tube with "LPS-3"
batch: _____3-Install blade fitting D3488-042, wearshoes and ground handling hardware as
per dwg D2750

SIKA FLEX 241

BATCH: 112345

EXP DATE: 10/08

4-assemble o-ring to plug as per dwg D3492 and apply o-ring lube
A/R 55-o-ring lube batch: 1012235-Coat all exposed fasteners with "LPS Procyon"
batch: 104051

BR 10-01-20. ①

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 54956

January 5, 2010 10:44:35 AM



Page 9

Item ID: D350-636-012

Accept



Setup Start



Revision ID:

Stop



Item Name: Skidtube RH

Start Date: 05/01/2010 Start Qty: 1.00



Cust Item ID:

Required Date: 18/01/2010 Req'd Qty: 1.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

240

QC5- Inspect part completeness to step on W/O

0.00

② 8 10/6/20



QC

Memo

0.00

⑦

Quality Control

250

Pick Kit

0.00



Packaging

Memo

0.00

10-1-22 sf

Packaging

260

QC4- 100% Inspect kits for completeness

0.00

② 8 10/6/20



QC

Memo

0.00

⑦

Quality Control

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 54956

January 5, 2010 10:44:35 AM



Page 10

Item ID: D350-636-012

Accept



Setup Start



Revision ID:

Stop



Item Name: Skidtube RH

Start Date: 05/01/2010 Start Qty: 1.00



Cust Item ID:

Required Date: 18/01/2010 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

270

0.00



Packaging

Packaging

Memo

0.00

Packaging

Package as per PPP D350-636-012

New H

10/01/26

280

0.00



QC21- Final Inspection - Work Order Release

QC

Memo

0.00

Quality Control

10/01/27

MF

10-1-27

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

January 5, 2010 10:44:40 AM

Page 1

Work Order ID: 54956

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Comments: IPP RevP: as per ECN9490 DD 09.12.09 verified by:EC

Start Date: 05/01/2010

Required Date: 18/01/2010

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
ALS4-1032-225	Purchased	No			220	Each	6,691.000	38.0000			

Insert

Warehouse	Loc Qty	Loc Code
Location		
Main Warehouse		
ST	6691	
107441	16	
110768 ✓	6675	

AN3C5A Purchased No

230 Each 609.0000 34.0000

Bolt

Warehouse	Loc Qty	Loc Code
Location		
Main Warehouse		
ST 113644	609	
111424	8	
111707	69	
112314	1	
113121	231	
113149	300	

AN3C6A Purchased No

230 Each 828.0000 4.0000

BOLT

Warehouse	Loc Qty	Loc Code
Location		
Main Warehouse		
ST	828	
111982 ✓	828	

38 BR 10-01-20

34 BR 10-01-20

4 BR 10-01-20

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

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Work Order ID: 54956

Parent Item: D350-636-012

Parent Item Name: Skidtube RH


Start Date: 05/01/2010

Required Date: 18/01/2010

Comments: IPP RevP: as per ECN9490 DD 09.12.09 verified by:EC

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Qty/ Arch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
AN6C44A 		Purchased	No			230	Each	148.0000	4.0000			
BOLT												

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
OFFSHORE		
FG	2	
103964	2	
Main Warehouse		
ST	146	
110105	4	
110155	14	
110665	1	
111605	50	
111649	50	
112720	9	
113121 ✓	18	

4 PR 10-01-20.

AN8C35A 	Purchased	No
BOLT		

230	Each	137.0000	1.0000
-----	------	----------	--------

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	137	
102180	1	
106896	1	
110105	48	
110847 ✓	87	

1 PR 10-01-20.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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Work Order ID: 54956

Parent Item: D350-636-012

Parent Item Name: Skidtube RH


Start Date: 05/01/2010

Required Date: 18/01/2010

Comments: IPP RevP: as per ECN9490 DD 09.12.09 verified by:EC


Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Qty Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
AN960C10L 		Purchased	No			230	Each	416.0000	38.0000			
washer												

Warehouse	Loc Qty	Loc Code
Location		
OFFSHORE		
FG 113288	100	
103585	100	
Main Warehouse		
ST	316	
112116	156	
112612	160	

38. BR 10-01-20.

*AN960C816L 	Purchased	No				230	Each	240.0000	1.0000			
WASHER												

Warehouse	Loc Qty	Loc Code
Location		
Main Warehouse		
ST 110372	240	
104093	2	
107520	4	
110139	29	
110584	100	
111424	105	

1 BR 10-01-20.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

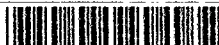
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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Work Order ID: 54956



Parent Item: D350-636-012



Parent Item Name: Skidtube RH

Start Date: 05/01/2010

Required Date: 18/01/2010

Comments: IPP RevP: as per ECN9490 DD 09.12.09 verified by:EC

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Manufactured Part	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
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D2745		Manufactured	No			230	Each	346.0000	8.0000			
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Bushing

Warehouse	Loc Qty	Loc Code
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Location

Main Warehouse

ST	59	
----	----	--

34817	2	
-------	---	--

36230	8	
-------	---	--

37303	1	
-------	---	--

39587	2	
-------	---	--

40726	2	
-------	---	--

41114	2	
-------	---	--

42778	6	
-------	---	--

43754	2	
-------	---	--

44893	33	
-------	----	--

45556	1	
-------	---	--

Main Warehouse

ST46	287	
------	-----	--

51537	70	
-------	----	--

51910/	36	
--------	----	--

52311	181	
-------	-----	--

8 BL 10-01-20.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

January 5, 2010 10:44:40 AM

Work Order ID: 54956



Parent Item: D350-636-012



Parent Item Name: Skidtube RH

Start Date: 05/01/2010

Required Date: 18/01/2010

Comments: IPP RevP: as per ECN9490 DD 09.12.09 verified by:EC

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Wifg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measura	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3488-042		Manufactured	No			230	Each	16.0000	1.0000			
Blade Fitting Assembly, RH												

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	16	
29043	1	
52666 ✓	15	

D3492-041		Manufactured	No			230	Each	76.0000	8.0000			
Plug Assembly												

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	76	
51584 ✓	76	

1. BK 10-01-20

8. BK 10-01-20

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

January 5, 2010 10:44:40 AM

Work Order ID: 54956



Parent Item: D350-636-012



Parent Item Name: Skidtube RH

Start Date: 05/01/2010

Required Date: 18/01/2010

Comments: IPP RevP: as per ECN9490 DD 09.12.09 verified by:EC

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	fg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
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D3492-043		Manufactured	No			230	Each	143.0000	8.0000			
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Plug Assembly

Warehouse Loc Qty Loc Code

Location

Main Warehouse

FP 123

54682 ✓ 123

Main Warehouse

ST 20

52309 20

8 BK 10-01-20

D3535-25		Manufactured	No			230	Each	15.0000	1.0000			
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Wearshoe

Warehouse Loc Qty Loc Code

Location

Main Warehouse

FP 7

51927 ✓ 7

Main Warehouse

ST 8

52589 8

1 BK 10-01-20.

January 5, 2010 10:44:40 AM

Shop Packet Print

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

January 5, 2010 10:44:40 AM

Work Order ID: 54956



Parent Item: D350-636-012



Parent Item Name: Skidtube RH

Start Date: 05/01/2010

Required Date: 18/01/2010

Comments: IPP RevP: as per ECN9490 DD 09.12.09 verified by:EC

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Orig/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
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D3536-25

Manufactured

No

230

Each

40.0000

1.0000



Gasket

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

FP10

35

51607 ✓

9

54479

26

Main Warehouse

ST

5

45569

1

47011

2

47526

2

D3537-1

Manufactured

No

230

Each

141.0000

3.0000



Wearpad

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

FP

2

48288

2

Main Warehouse

FP17

139

51678 ✓

34

51679

105

1 BL 10-01-20

3 BL 10-01-20.

January 5, 2010 10:44:40 AM

Shop Packet Print

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

January 5, 2010 10:44:40 AM

Work Order ID: 54956



Parent Item: D350-636-012



Parent Item Name: Skidtube RH


Start Date: 05/01/2010

Required Date: 18/01/2010

Comments: IPP RevP: as per ECN9490 DD 09.12.09 verified by:EC


Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Plg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measur	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3631-1  Washer		Manufactured	No			230	Each	442.0000	8.0000			

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	442	
52693 ✓	142	
54388	300	

8 10-01-20

D3672-1  Phenolic Washer		Manufactured	No			230	Each	1,744.000	4.0000			
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<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	1244	
39275	19	
42329	5	
47628 ✓	220	
52505	1000	
Main Warehouse		
ST117	500	
51674	500	

4 10-01-20

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval- Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

January 5, 2010 10:44:40 AM

Work Order ID: 54956



Parent Item: D350-636-012



Parent Item Name: Skidtube RH

Start Date: 05/01/2010

Required Date: 18/01/2010

Comments: IPP RevP: as per ECN9490 DD 09.12.09 verified by:EC

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mag/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3791-1 		Manufactured	No			230	Each	11.0000	1.0000			
Wearplate												

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
FP	7	
51610 ✓	7	
Main Warehouse		
ST	4	
51909	4	

1 BR 10-01-20 ..

D3793-1 		Manufactured	No			230	Each	19.0000	1.0000			
Wearshoe												

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	19	
40551	1	
51597 ✓	16	
51906	2	

1 BR 10-01-20.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

January 5, 2010 10:44:40 AM

Work Order ID: 54956



Parent Item: D350-636-012



Parent Item Name: Skidtube RH

Start Date: 05/01/2010

Required Date: 18/01/2010

Comments: IPP RevP: as per ECN9490 DD 09.12.09 verified by:EC

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Fig/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3793-3		Manufactured	No			230	Each	16.0000	1.0000			
Wearshoe												

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	16	
51592	12	
51903 ✓	4	

1 10-01-20.

D3794-1		Manufactured	No			230	Each	15.0000	1.0000			
Gasket												

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
FP	12	
51928 ✓	12	
Main Warehouse		
ST	3	
46530	1	
47212	2	

1 10-01-20.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval- Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

January 5, 2010 10:44:40 AM

Work Order ID: 54956

Parent Item: D350-636-012

Parent Item Name: Skidtube RH


Comments: IPP RevP: as per ECN9490 DD 09.12.09 verified by:EC

Start Date: 05/01/2010

Required Date: 18/01/2010

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Orig/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3794-3		Manufactured	No			230	Each	21.0000	1.0000			
												

Gasket

Warehouse Loc Qty Loc Code

Location

Main Warehouse

FP 18

51598 ✓ 6

51907 12

Main Warehouse

ST 3

46531 2

47440 1

MS21043-6

Purchased

No

230

Each

1,000.000 4.0000



NUT

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST 1000

111424 8

112314 ✓ 992

1 BR 10-01-20

4 BR 10-01-20

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

January 5, 2010 10:44:40 AM

Work Order ID: 54956



Parent Item: D350-636-012



Parent Item Name: Skidtube RH

Start Date: 05/01/2010

Required Date: 18/01/2010

Comments: IPP RevP: as per ECN 9490 DD 09.12.09 verified by:EC

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mag/ Furch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
MS21083C8 		Purchased	No			230	Each	53.0000	1.0000			
NUT												

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	53	
110584	5	
111424	2	
112492 ✓	6	
113149	40	

BR 10-01-20.

NAS1611-010

Purchased

No

230

Each

330.0000

8.0000



O-RING

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	330	
110715	44	
110915	286	

PTO →
BR 10-01-20.

W/O: 54956		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
10-01-20	230	CHANGE 1611-010 BRING FOR D2594-3 B. 52562	BR	10-01-20	8.		

Part No: D350-636-012 PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

January 5, 2010 10:44:40 AM

Work Order ID: 54956

Parent Item: D350-636-012

Parent Item Name: Skidtube RH


Start Date: 05/01/2010

Required Date: 18/01/2010


Comments: IPP RevP: as per ECN9490 DD 09.12.09 verified by:EC

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Qty/ Arch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
NAS1611-013		Purchased	No			230	Each	74.0000	8.0000			
												
O-RING												

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	74	
106513	11	
111424	20	
111758 ✓	43	

AN8C21A	Purchased	No				250	Each	148.0000	2.0000			
												
BOLT												

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	148	
105160	1	
107596	1	
107924	2	
109092	2	
110341	2	
110342	2	
111605	50	
112720	38	
113558	50	

8.12.1001-20.
10-1-22 sf

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval- Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

January 5, 2010 10:44:40 AM

Work Order ID: 54956

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Start Date: 05/01/2010

Required Date: 18/01/2010

Comments: IPP RevP: as per ECN9490 DD 09.12.09 verified by:EC

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mag/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
AN960C816L WASHER		Purchased	No			250	Each	240.0000	2.0000			

10-1-22 *sl*

Warehouse	Loc Qty	Loc Code
<u>Location</u>		
Main Warehouse		
ST	240	
104093	2	
107520	4	
110139	29	
110584	100	
111424	105	

D2741 Blade, 350 Skidtube	Manufactured	No				250	Each	45.0000	1.0000			
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10-1-22 *sl*

Warehouse	Loc Qty	Loc Code
<u>Location</u>		
Main Warehouse		
ST	45	
45320	1	
47113	4	
51931	40	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

January 5, 2010 10:44:40 AM

Work Order ID: 54956

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Comments: IPP RevP: as per ECN9490 DD 09.12.09 verified by:EC

Start Date: 05/01/2010

Required Date: 18/01/2010

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Qty Perch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
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D3493-1 Washer		Manufactured	No			250	Each	55.0000	2.0000			
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Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

55

44902

2

47710

53

D3532-1 Spacer		Manufactured	No			250	Each	80.0000	2.0000			
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Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

80

44904

2

52321

78

D3672-13 Phenolic Washer		Purchased	No			250	Each	948.0000	2.0000			
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Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

948

34363

948

January 5, 2010 10:44:40 AM

Shop Packet Print

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval- Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

January 5, 2010 10:44:40 AM

Work Order ID: 54956

Parent Item: D350-636-012

Parent Item Name: Skidtube RH


Comments: IPP RevP: as per ECN9490 DD 09.12.09 verified by:EC

Start Date: 05/01/2010

Required Date: 18/01/2010

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Org/ Arch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
MS21083C8  NUT		Purchased	No			250	Each	53.0000	2.0000			

10-1-22

SP

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST	53	
110584	5	
111424	2	
112492	6	
113149	40	

D2600-3-BENT

Manufactured No



Extrusion Bent

110 Each 16.0000 1.0000

2

10-1

Warehouse Loc Qty Loc Code

Location

Main Warehouse

LG	5	
50675	5	
Main Warehouse		
ST	11	
43495	1	
47133	1	
52346	9	

1

10/1/6

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

January 5, 2010 10:44:40 AM

Work Order ID: 54956



Parent Item: D350-636-012



Parent Item Name: Skidtube RH

Start Date: 05/01/2010

Required Date: 18/01/2010

Comments: IPP RevP: as per ECN9490 DD 09.12.09 verified by:EC

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Manuf Part	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D2744		Manufactured	No			110	Each	60.0000	1.0000			

Cap

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	60	
44892	1	
47488	23	
51922	36	

D2739

Manufactured No



350 I Beam

160 Each 5.0000 1.0000



<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	5	
47124	1	
53900	4	

B - 55034

- ALL AS 10-01-11



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

January 5, 2010 10:44:40 AM

Work Order ID: 54956

Parent Item: D350-636-012

Parent Item Name: Skidtube RH


Comments: IPP RevP: as per ECN9490 DD 09.12.09 verified by:EC

Start Date: 05/01/2010

Required Date: 18/01/2010

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg Part	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D2743		Manufactured	No			160	Each	299.0000	8.0000			
												

Crossbolt Spacer

Warehouse Loc Qty Loc Code

Location

Main Warehouse

LG 94

50281 50

51913 44

Main Warehouse

ST 205

44891 2

45555 17

48275 1

52310 185

8 BE 10/01/12

D3490-3 Manufactured No



Cross Bolt Spacer

160 Each 37.0000 4.0000



Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST 37

45560 1

48276 31

51930 5

4 BE 10/01/12

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval~ Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

January 5, 2010 10:44:40 AM

Work Order ID: 54956



Parent Item: D350-636-012



Parent Item Name: Skidtube RH

Start Date: 05/01/2010

Required Date: 18/01/2010

Comments: IPP RevP: as per ECN9490 DD 09.12.09 verified by:EC

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg Purchase	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3490-1		Manufactured	No			160	Each	84.0000	4.0000			

Cross Bolt Spacer

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	84	
45338	2	
47657	22	
48277	20	
51932	40	

4 OK 10/01/12

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

QTY -041	QTY -042	QTY -043	QTY -044	PART NUMBER	DESCRIPTION
X				D2750-041	350 SKIDTUBE ASSEMBLY, LH
	X			D2750-042	350 SKIDTUBE ASSEMBLY, RH
		X		D2750-043	350 SKIDTUBE ASSEMBLY, LH
			X	D2750-044	350 SKIDTUBE ASSEMBLY, RH
1	1	1	1	D2739	WEB
8	8	8	8	D2743	SPACER
1	1	1	1	D2744	CAP
8	8	8	8	D2745	FLUSHING
1				D2750-1	SKIDTUBE WELDMENT, LH
	1			D2750-2	SKIDTUBE WELDMENT, RH
		1		D2750-3	SKIDTUBE WELDMENT, LH
			1	D2750-4	SKIDTUBE WELDMENT, RH
1		1		D3488-041	BLADE FITTING, LH
				D3488-042	BLADE FITTING, RH
4	4	4	4	D3490-1	SPACER
4	4			D3490-3	SPACER
		4	4	D3490-5	SPACER
8	8	8	8	D3492-041	PLUG ASSEMBLY
8	8			D3492-043	PLUG ASSEMBLY
		8	8	D3492-045	PLUG ASSEMBLY
1	1	1	1	D3535-25	WEARSHOE
1	1	1	1	D3536-25	GASKET
3	3	3	3	D3537-1	WEARPAD
8	8	8	8	D3531-1	WASHER
1	1	1	1	D3791-1	WEARPLATE
1	1	1	1	D3793-1	WEARSHOE
1	1	1	1	D3793-3	WEARSHOE
1	1	1	1	D3794-1	GASKET
1	1	1	1	D3794-3	GASKET
38	38	38	38	ALS4-1032-225	INSERT (OR ALS7-1032-225, AKS4-1032-225, AELS-1032-225)
34	34	34	34	AN30C54	BOLT
4	4	4	4	AN30C64	BOLT
4	4	4	4	AN30C44A	BOLT
1	1	1	1	AN30C35A	BOLT
38	38	38	38	AN960C10L	WASHER
1	1	1	1	AN960C616L	WASHER
4	4	4	4	MS21043-8	NUT
1	1	1	1	MS21022C8	NUT
4	4	4	4	NAS1515H3L	WASHER

GENERAL NOTES:

MATERIAL: MAKE D2750-1/-2/-3/-4 FROM D2600-3 EXTRUSION (INITIAL LENGTH = 120.0).

FINISH:

ACID ETCH, ALONDE ASSEMBLY PER DART OSI 005 4.1 PRIOR TO INSTALLING D2739 WEB.

POWDER COAT WHITE (REF. 4.3.5.1) PER DART OSI 005 4.3

BLACK ANTI-SKID PAINT AS INDICATED TO 1.0 ABOVE SKIDTUBE CENTER-LINE PER DART 005 4.4 (OPTIONAL).

TOLERANCES: PER DART OSI 018 UNLESS OTHERWISE NOTED

UNITS: INCHES UNLESS OTHERWISE NOTED

BREAK SHARP EDGES: N/A

IDENTIFICATION: N/A

WEIGHT: D2750-041/-042/-043/-044 = 26.5 LBS

WELD PER DART OSI 004

INSTALL ALS4-1032-225 INSERTS AFTER FINISH AS INDICATED. DRILL "F" SIZE HOLES (Ø 0.297) FOR WEARSHOE INSERTS

FINAL CONFIGURATION SHOULD HAVE THE FOLLOWING MINIMUM MECHANICAL PROPERTIES:

MINIMUM YIELD TENSILE STRENGTH = 35 KSI

MINIMUM ULTIMATE TENSILE STRENGTH = 38 KSI

1) SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND AFTER INSTALLATION OF INSERTS.

COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF

POWDER COATING WITH MEK DEGREASER

2) SPACER AND PLUG INSTALLED SAME AS SECTION AJ-AJ EXCEPT HORIZONTAL

3) SPACER AND PLUG INSTALLED SAME AS SECTION AP-AP EXCEPT HORIZONTAL

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NO. 54954
BP10-1-05

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66-9-17-10

F	INCORPORATE OSI 5413: QTY (3) D3537-1 WAS QTY (5) (ZN C6-1); D3791-1/3 REPLACES D3535-13/35 (ZN C6-1); D3794-1/3 REPLACES D3536-13/35 (ZN C6-1); ADD D3791-1 (ZN C6-1); WEARSHOE HOLES UNDER FINISH SADDLE REMOVED (6 PL). WEARSHOE HARDWARE QTY UPDATED (ZN C6-1); D3485-041/-042 HARDWARE UPDATED (ZN C1-8, 9, 10, 11); ADD NOTE 12 AND 13 (ZN A6-1); REASON: REF. NCR 08-043	PH	06.07.16
E	CHANGE TO STAINLESS STEEL WEARPLATES; ADD RUBBER GASKETS; CHANGE INSERTS; ADD D3651-1; REMOVE QTY (38) NAS1515H3L, REMOVE QTY (10) NAS1515H3L, REMOVE D2741, QTY (2) AN30C645; REMOVE QTY (2) MS21033C8	CE	07.05.17
D	ADD HOLES AND SPACERS FOR APICAL FLOATS; INCORPORATE DEO 9132.5167	PH	06.01.65
C	ADD D2750-3/D2750-4; INCORPORATE D2739 AND D2740	CP	06.11.16
B	CHANGE MS34534-S293 TO AMS-16A	CP	28.09.01
A	NEW ISSUE	OS	08.04.16
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	06.07.16		

DART AEROSPACE USA, INC.
PORT HADLOCK, WA
DRAWING NO. D2750
REV. F
SHEET 1 OF 11
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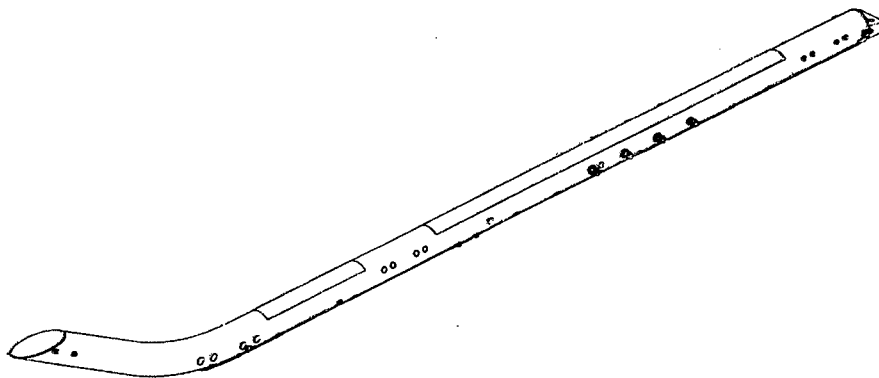
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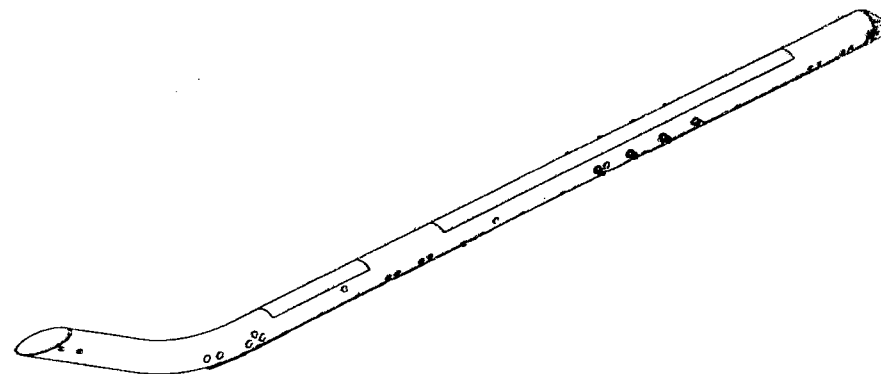
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



D2750-041 350 SKIDTUBE ASSEMBLY, LH



D2750-042 350 SKIDTUBE ASSEMBLY, RH

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JAN 11 1971

1010 54956

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MFG. APPR.	[Signature]	D2750	SHEET 2 OF 11
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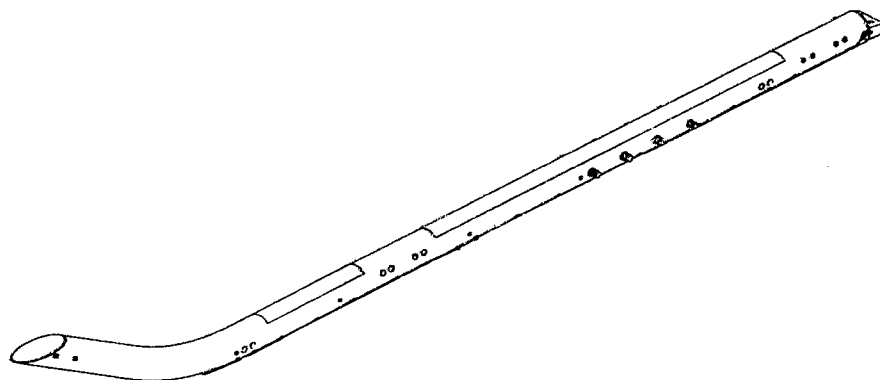
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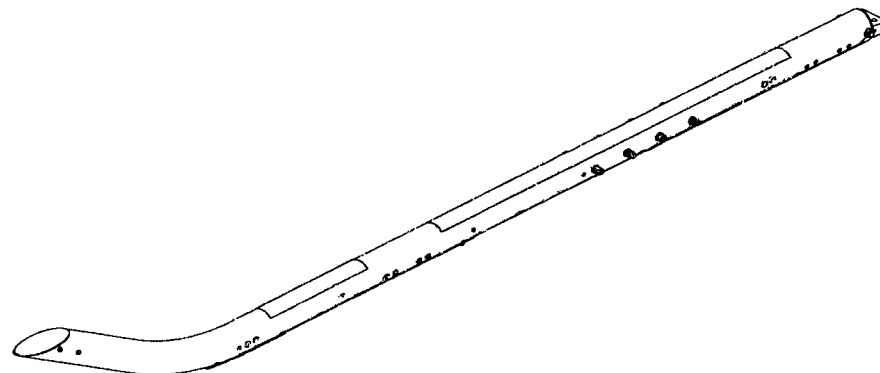
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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D2750-043 350 SKIDTUBE ASSEMBLY, LH



D2750-044 350 SKIDTUBE ASSEMBLY, RH

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65-19 2-1-77

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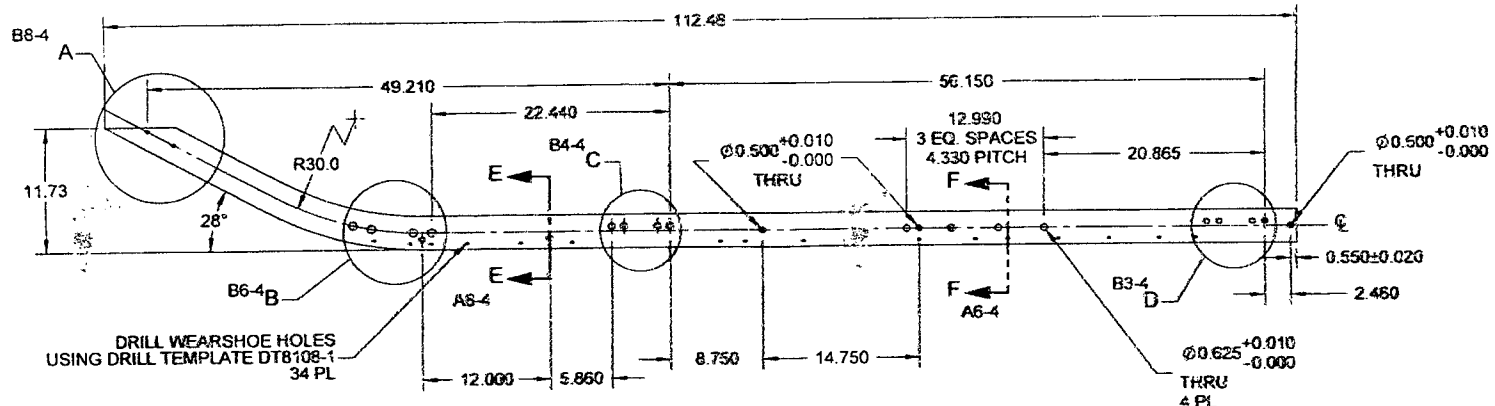
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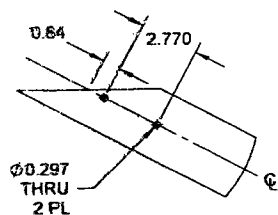
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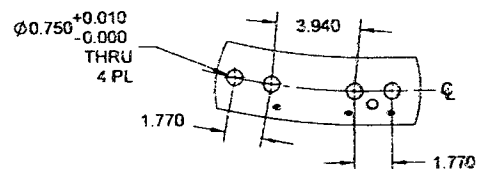
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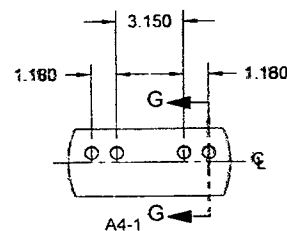
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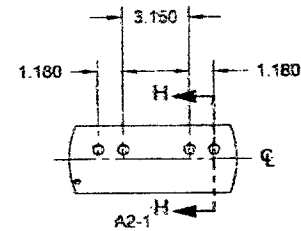
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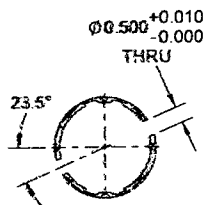
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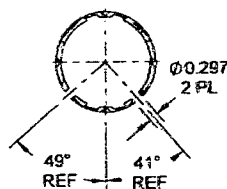
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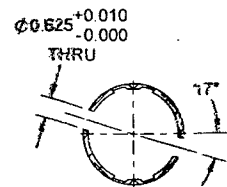
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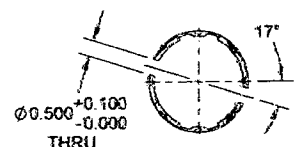
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SCALE 3X, 2 PL



SECTION F-F
SCALE 3X, 17 PL



SECTION G-G
SCALE 3X, 4 PL



SECTION H-H
SCALE 3X, 4 PL

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CHECKED	APB	DRAWING NO.	REV. F
MFG. APPR.	APB	D2750	SHEET 4 OF 11
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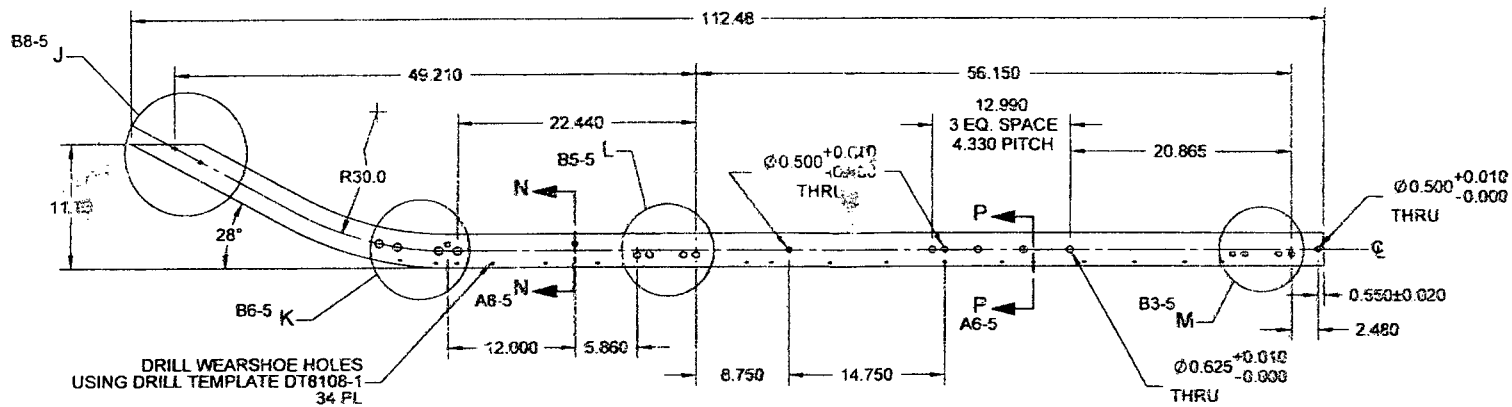
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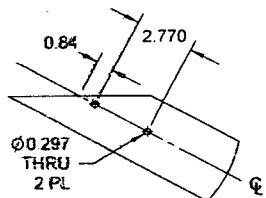
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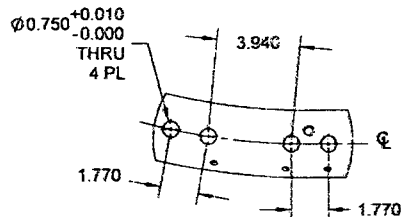
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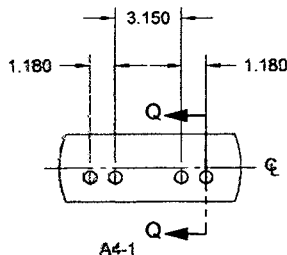
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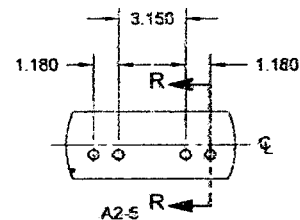
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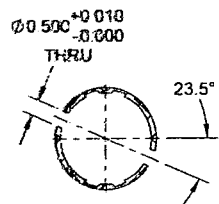
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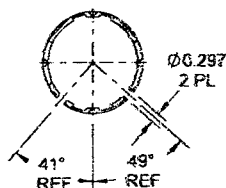
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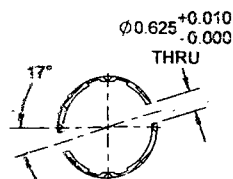
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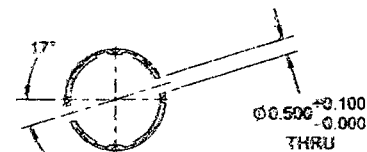
SECTION N-N
SCALE 3X, 2 PL



SECTION P-P
SCALE 3X, 17 PL



SECTION Q-Q
SCALE 3X, 4 PL



SECTION R-R
SCALE 3X, 4 PL

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TITLE	350 SKIDTUBE ASSEMBLY	SCALE NTS
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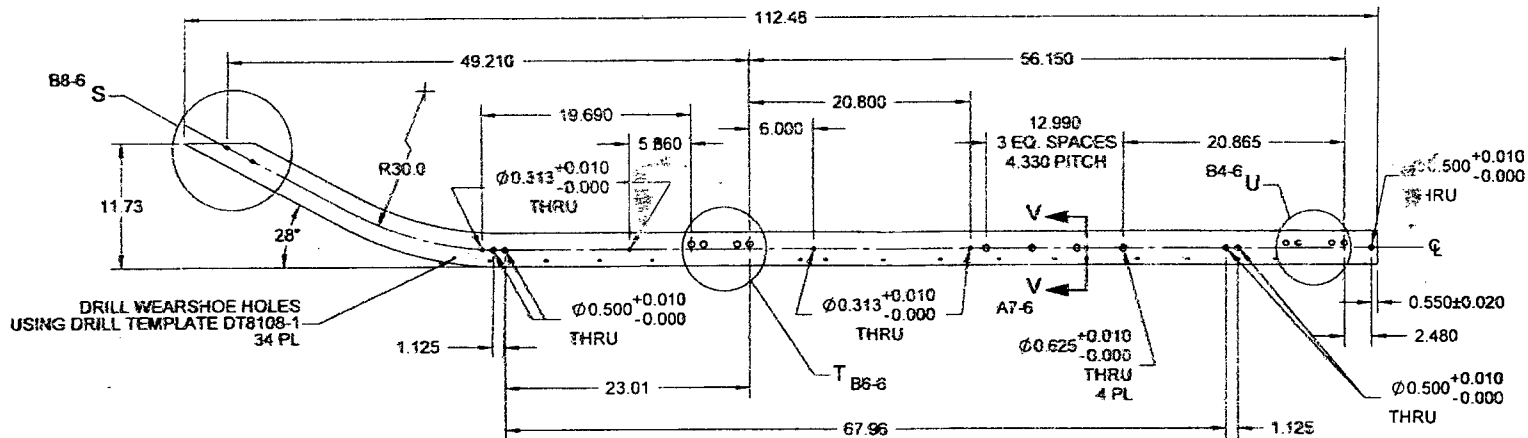
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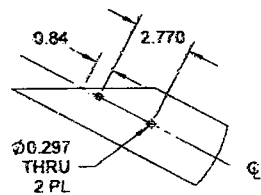
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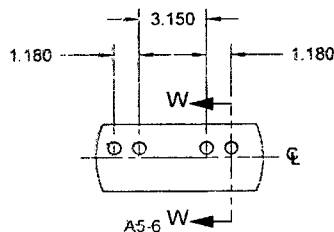
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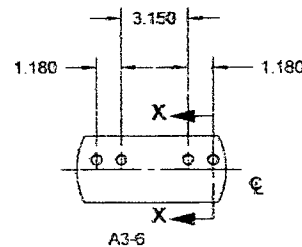
D2750-3 LH SKIDTUBE



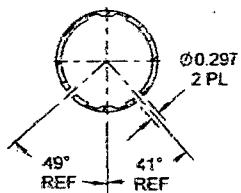
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SCALE 2X



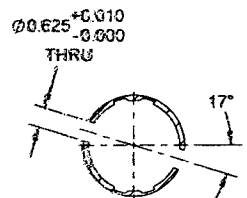
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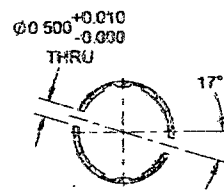
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SCALE 2X



SECTION V-V
SCALE 3X, 17 PL



SECTION W-W
SCALE 3X, 4 PL



SECTION X-X
SCALE 3X, 4 PL

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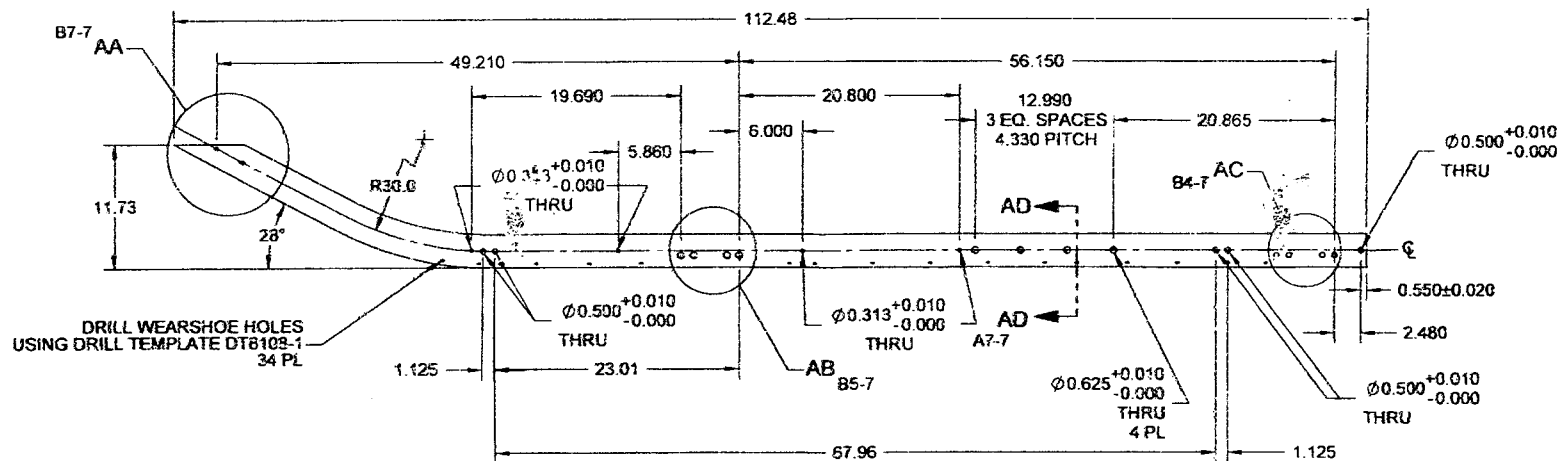
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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

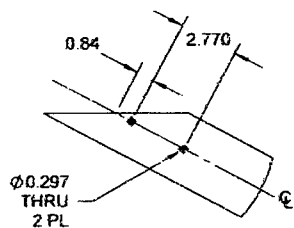
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

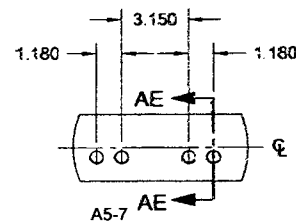
NOTE: Date & initial all entries



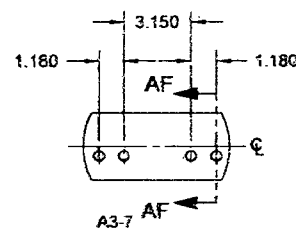
D2750-4 RH SKIDTUBE



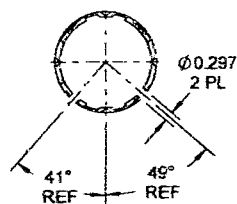
DETAIL AA
SCALE 2X



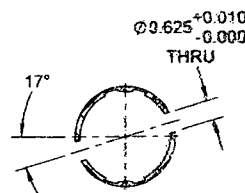
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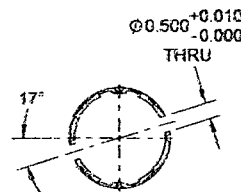
DETAIL AC
SCALE 2X



SECTION AD-AD
SCALE 3X, 17 PL



SECTION AE-AE
SCALE 3X, 4 PL



SECTION AF-AF
SCALE 3X, 4 PL

RELEASED
06-09-2010

DESIGN	DA	DART AEROSPACE USA, INC.	
DRAWN	DA	PORT HADLOCK, WA	
CHECKED	DA	DRAWING NO.	REV. F
MFG. APPR.	DA	D2750	SHEET 7 OF 11
APPROVED	DA	TITLE	SCALE
DE APPR.	DA	350 SKIDTUBE ASSEMBLY	MTS
DATE	08.07.16	COPYRIGHT © 1995 BY DART AEROSPACE USA, INC.	

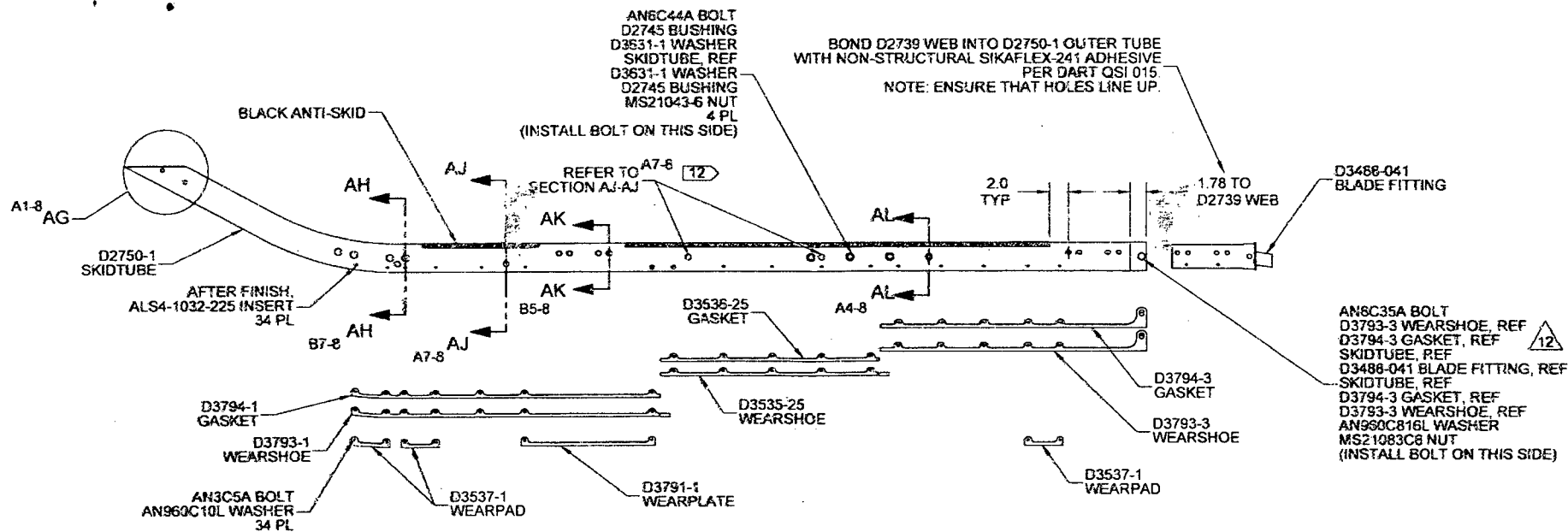
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

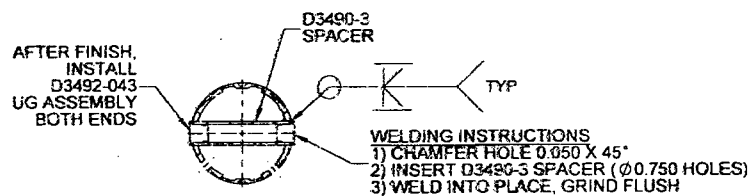
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

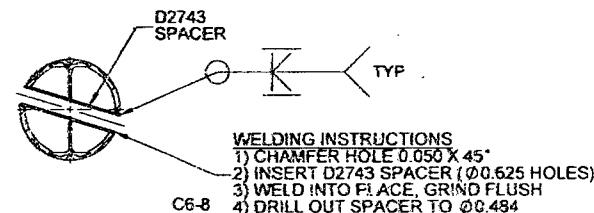
NOTE: Date & initial all entries



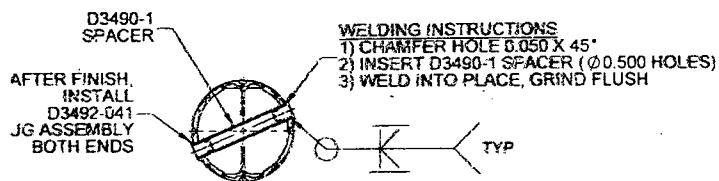
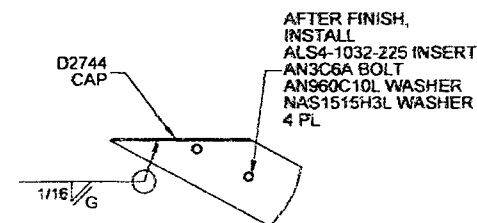
D2750-041 350 SKIDTUBE ASSEMBLY, LH



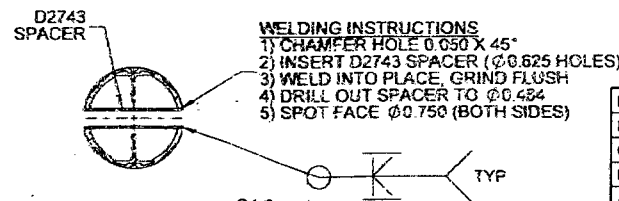
SECTION AH-AH
SCALE 3X, 4 PL



SECTION AK-AK
SCALE 3X, 4 PL



SECTION AJ-AJ
SCALE 3X, 4 PL



SECTION AL-AL
SCALE 3X, 4 PL
(HARDWARE REMOVED FOR CLARITY)

DETAIL AG
SCALE 2X

RELEASED

DESIGN	W10 54956	DART AEROSPACE USA, INC.	REV. F
DRAWN		PORT HADLOCK, WA	
CHECKED		DRAWING NO. D2750	SHEET 8 OF 11
MFG. APPR.		TITLE	SCALE
APPROVED		350 SKIDTUBE ASSEMBLY	NTS
DE APPR.			
DATE	08.07.16		

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

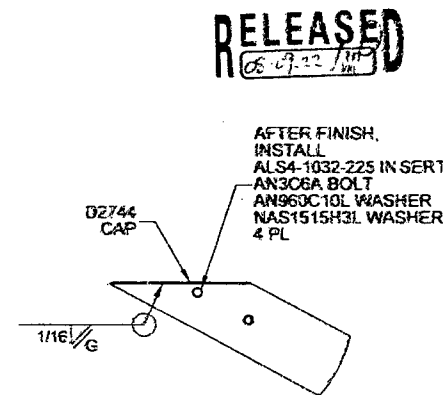
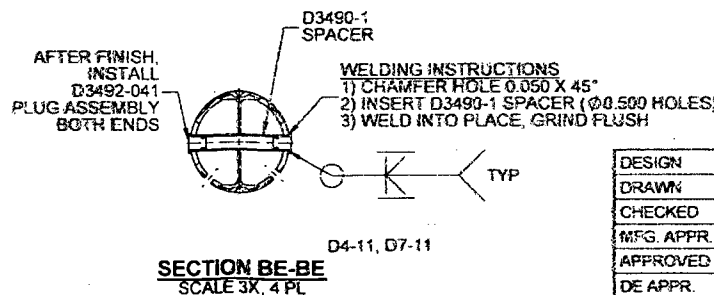
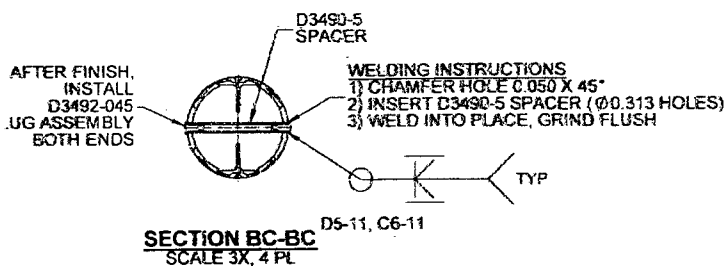
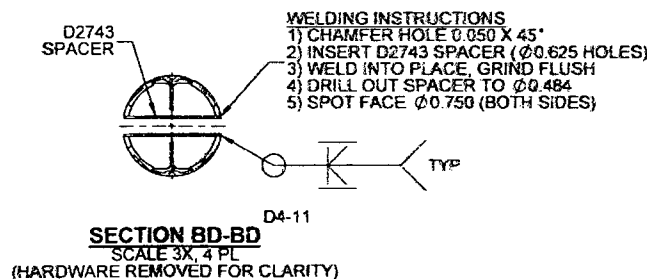
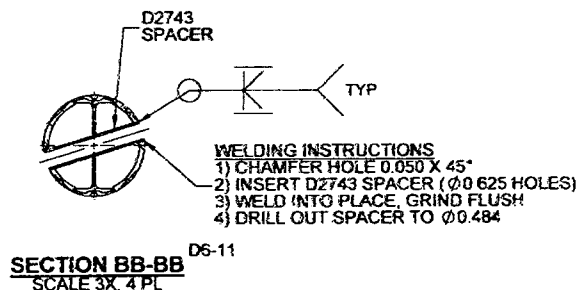
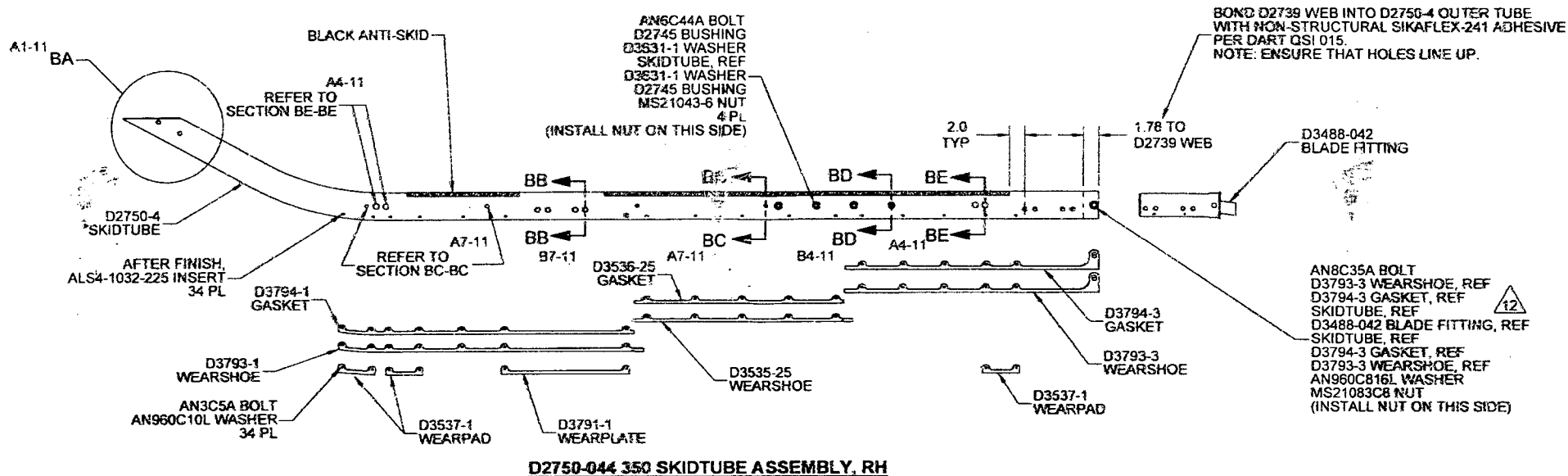
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



DESIGN	1516	DART AEROSPACE USA, INC.	
DRAWN	1516	PORT HADLOCK, WA	
CHECKED	1516	DRAWING NO.	REV. F
MFG. APPR.	1516	D2750	SHEET 11 OF 11
APPROVED	1516	TITLE	SCALE
DE APPR.	1516	350 SKIDTUBE ASSEMBLY	NTS
DATE	08.07.16	COPYRIGHT © 1988 BY DART AEROSPACE USA, INC.	

RELEASED
06-07-22 / 11/16

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

NO. 222

AWS D17.1.2001
QUALIFICATION TEST RECORD

Name: Barclay Elliott
Job number: 54986
Part number: D350-636 012
Description: 350 skid tube
Welding Process: Tig[☒] Mig[]
Base material: Aluminium
Current: AC[☒] DC[]

TEST REQUIREMENTS AND RESULTS

Visual: pass[☒] fail[]
Penetration: pass[☒] fail[]

UNACCEPTABLE

Cracks: pass[☒] fail[]
Undercut: pass[☒] fail[]
Pin holes: pass[☒] fail[]
Overlap (cold lap): pass[☒] fail[]
Porosity (surface): pass[☒] fail[]
Coloration: pass[☒] fail[]

Qualifier [Signature] Date of Test Coupon 10-01-11

Welder Barclay Elliott Date of Test Coupon 10-01-11

The above named individual is qualified in accordance with AWS D17.1.2001 to weld